

# **WILDLIFE HARVEST AND POPULATION STATUS REPORT**

## **RING-NECKED PHEASANT – 2008**

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### **2007 PHEASANT HUNTING SEASON**

Pheasant hunter activities are estimated using a post-season mail survey sent to holders of Missouri's hunting permits that allow hunting of small game (resident small game hunting permit, non-resident small game permit, daily small game permit, lifetime hunting permit, resident hunting and fishing permit, etc.). Of the >200,000 permit holders, about 10,000 are sent surveys and about 50% return completed surveys.

For the 2007 season (November 1, 2007 to January 15, 2008), an estimated 8,493 pheasant hunters killed 21,604 pheasants, an 11% decrease in hunters and a 27% decrease in harvest from the 2006 season (Figure 1). The estimated 2007 pheasant harvest is also a 27% decline from the previous 5-year average (2002–2006; 29,742 average harvest) and a decline of 44% from the 10-year average (1997–2006; 38,396 average harvest). In 2007, pheasant hunters averaged 0.49 birds per day compared to 0.56 birds per day in 2006. Estimates of reported harvest by zoogeographic regions (regions depicted in Figure 2a) for 2007 were 6,792 pheasants (3,091 hunters) for the Northwestern Prairie, 8,006 pheasants (3,231 hunters) for the Northern Riverbreaks, 4,030 pheasants (1,609 hunters) for the Northeastern Riverbreaks and 1,699 pheasants (101 hunters) for the Mississippi Lowlands.

### **2008 POPULATION SURVEYS**

The Department annually cooperates with more than 400 rural mail carriers in mid-April to monitor the relative distribution of spring pheasant populations in northern and southeastern Missouri; these data also provide a spring pheasant distribution map (Figure 3). For 2008, rural mail carrier routes totaled 38,344 miles, and 148 pheasants were counted. This translates to an index of 0.39 pheasants per 100 miles of driving, down 43% from the 2007 count of 0.68. Put another way, at the rate pheasants were encountered in 2008, on average you would have to drive 259 miles to see one pheasant!

The Agents' Roadside Survey (ARS) measures the number of pheasants observed along 72 standardized 30-mile routes during 1-15 August and provides a fairly reliable predictor of fall pheasant harvest. The 2008 counts equaled or set new record lows in each region of the pheasant range. The 2008 statewide count of 0.75 pheasants per 30-mile route was down 37% compared

to 2007, 68% compared to the previous 5-year average (2003–2007), and 66% compared to the 10-year average (1998–2007; Table 1; Figure 4). By zoogeographic regions, counts were 0.79 in the Northwestern Prairie, 1.1 in the Northern Riverbreaks, 0.71 in the Northeastern Riverbreaks and zero in the Western Prairie and Mississippi Lowlands (Table 1). Data for Missouri Department of Conservation regions are shown in Table 2.

The record low count of pheasants is mostly due to poor production, which was likely caused by a cool spring and record high and untimely rainfall across the pheasant range. Crop planting across north Missouri was delayed for several weeks, and many of the bottomland habitats that pheasants occupy were flooded. Missouri Agricultural Weather (University of Missouri) rainfall measurements for May through July (prime nesting season) for most counties in the pheasant range were >10 inches above average. And counties with rainfall 14-21 inches above average for this period included Adair, Macon, Mercer, Monroe, Putnam, and Shelby Counties. The only bright side of the wet spring and summer for pheasants was that haying was delayed, and many cropfields remained weedy, providing nesting and brood-rearing habitat for some birds. The ARS pheasant chick count, however, reflected overall poor nesting conditions in spring and summer 2008. Compared to the 2007 survey, the 2008 chick count of 0.11 in the Northwestern Prairie was down 88%, the Northern Riverbreaks count of 0.55 was down 35%, the Northeast Riverbreaks count of 0.38 was down 4%, and no chicks were observed along roadside routes in the Western Prairie and Mississippi Lowlands regions.

The record low count of pheasants also is a result of a shrinking population, with pheasant abundance declining precipitously since 2005. The scarcity of adult pheasants is partly due to loss of habitat, particularly over the past year as hundreds of thousands of acres of grassland were quickly converted to corn, soybeans, and wheat as a result of energy production demand. Counted among the grassland losses were 149,000 acres of Missouri's Conservation Reserve Program (CRP) fields (out of a total of 1.5 million acres of CRP) that left the program in October 2007.

Prospects for the 2008 pheasant hunting season are poor. Expect hunting opportunities to be best in the Northern Riverbreaks region, and the poorest in the Mississippi Lowlands. Adjacent states such as Iowa, Kansas and Illinois also have near record low pheasant counts this year, so pheasant hunters will have to drive far to find widespread abundance of this popular game bird.

Hunting regulations for pheasants remain unchanged, with seasons in the north zone (daily bag limit 2; possession limit 4) open from October 25-26 for the youth season and November 1 to January 15 for the regular season. In the southeast zone, pheasant season is open December 1-12 and the daily and possession limits are one. Because pheasant harvest is limited to males, hunting has little impact on long-term population trends.

The Department attempted to expand the pheasant range in 14 northern Missouri counties by relocating wild-trapped birds from 1987 to 2000. All 23 targeted sites received the prescribed number of pheasants (Table 3). Evaluation and monitoring data indicates mixed results. Some release sites showed relatively high numbers of crowing males along survey routes adjacent to the release sites and showed some birds expanding into surrounding areas. Some releases showed relatively good numbers of birds around the release site, but the birds did not become numerous enough to be observed by rural mail carriers. Other release sites showed perpetually low numbers of birds that never disappeared, but never established thriving populations. Some releases were classified as failures for various reasons. Overall, the program appears to have been unsuccessful at expanding the pheasant range southward in a meaningful long-term fashion.

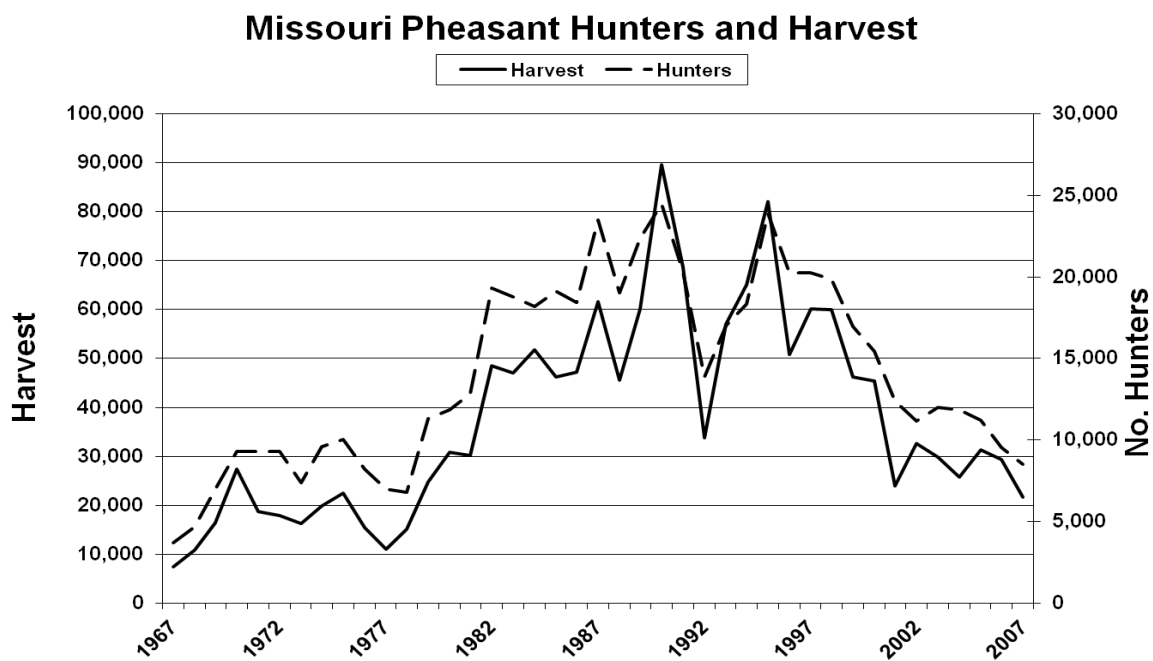


Figure 1. Number of ring-necked pheasant hunters and harvest estimated by the small-game post-season harvest mail survey (1967–2007).

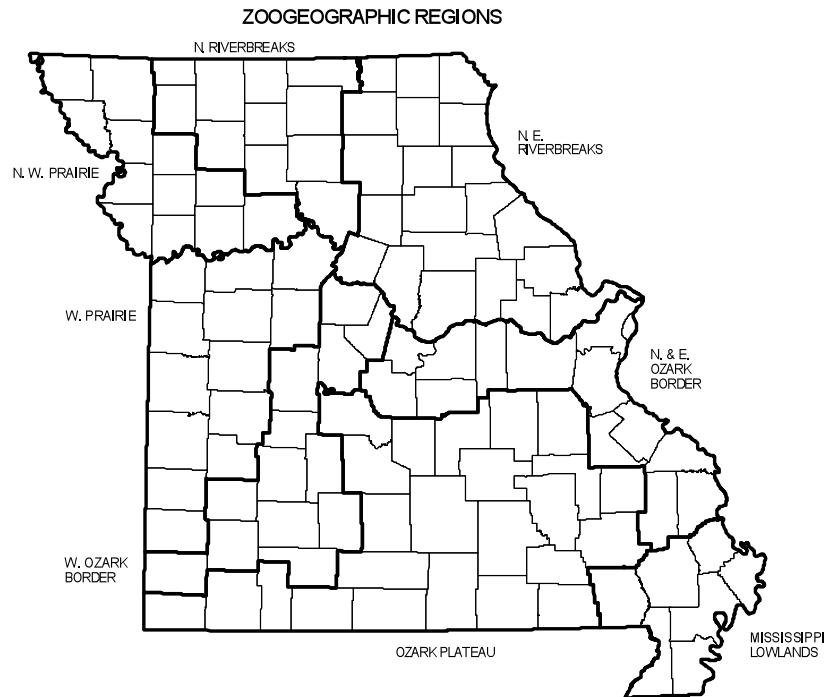


Figure 2a. Zoogeographic regions of Missouri.

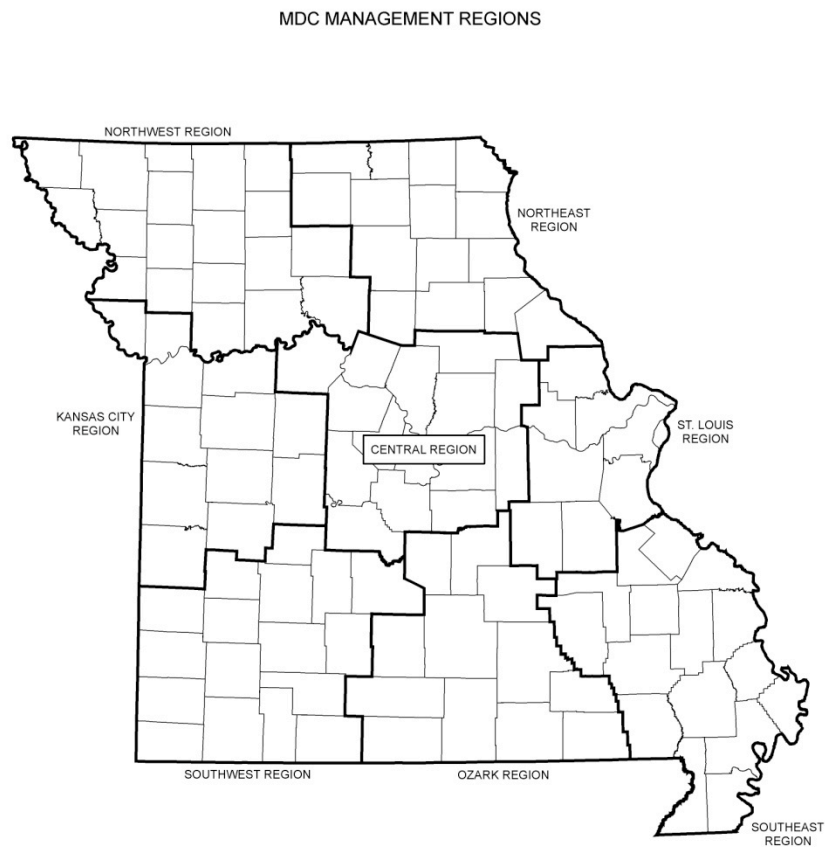


Figure 2b. Missouri Department of Conservation (MDC) regions.

## 2008 MISSOURI SPRING PHEASANT INDEX FROM RURAL MAIL CARRIER SURVEYS

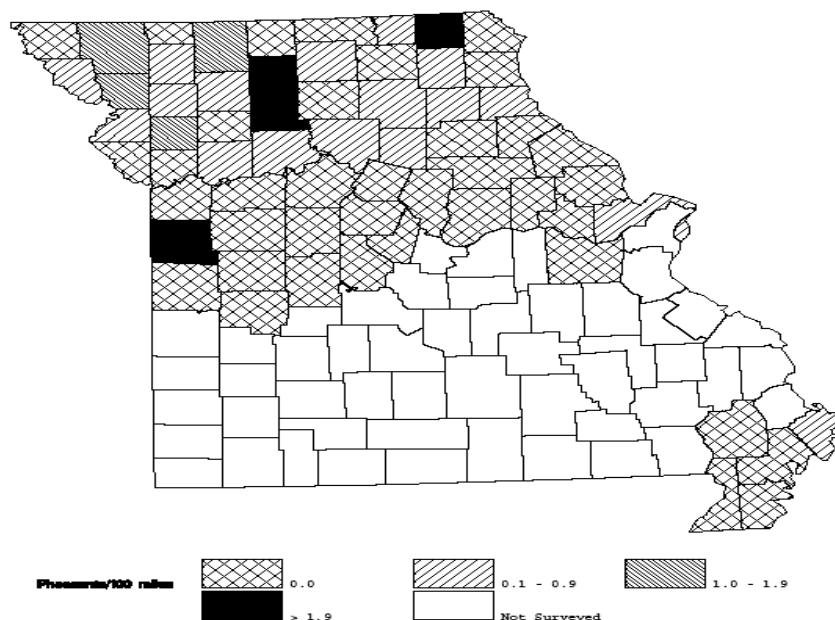


Figure 3. Relative distribution of Missouri spring pheasant populations derived from 455 completed rural mail carrier surveys, during mid-April 2008.

## Missouri Pheasant Trends

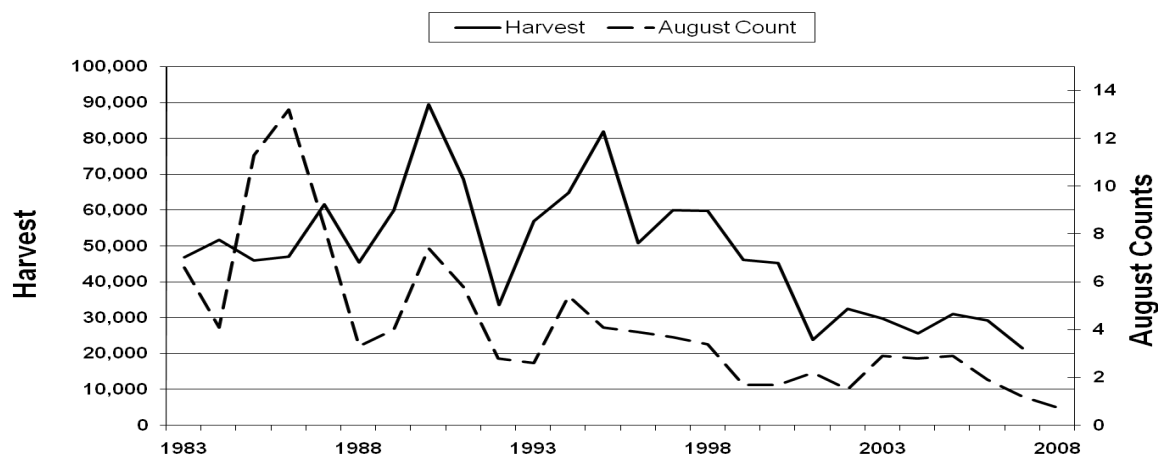


Figure 4. Estimated pheasant harvest from the small-game post-season mail survey (1983–2007 seasons), and relative population trends from the Agents' Roadside Survey (1983–08).

Table 1. The number of all pheasants observed along 30-mile routes during August 1–15, 2008, by Zoogeographic regions (see Figure 2a), and relative change through time.

<b>Zoogeographic regions (routes)</b>	<b>2008 Index</b>	<b>2-year (2007-2008) % change</b>	<b>5-year (2003-2007) % change</b>	<b>10-year (1998-2007) % change</b>
Northwestern Prairie (19)	0.79	-52	-80	-79
Northern Riverbreaks (20)	1.10	-23	-44	-48
Northeastern Riverbreaks (24)	0.71	-29	-65	-52
Western Prairie (3)	0.00	-100	-100	-100
Mississippi Lowlands (6)	0.00	-100	-100	-100
STATEWIDE (72)	0.75	-37	-68	-66

Table 2. The number of all pheasants observed along 30-mile routes during August 1–15, 2008, by Missouri Department of Conservation (MDC) regions (see Figure 2b), and relative change through time.

<b>MDC regions (routes)</b>	<b>2008 Index</b>	<b>2-year (2007-2008) % change</b>	<b>5-year (2003-2007) % change</b>	<b>10-year (1998-2007) % change</b>
Northwest (33)	1.12	-34	-67	-66
Northeast (26)	0.65	-35	-64	-54
Kansas City (3)	0.00	No change	-100	-100
Central (4)	0.00	No change	-100	-100
Southeast (6)	0.00	-100	-100	-100

Table 3. Release sites and numbers of wild-trapped pheasants per release, 1987-00.

RELEASE AREA	COUNTY	COMPLETED	NO. BIRDS (M:F)	SOURCE OF BIRDS
Novelty	Knox	1989	226 (66:145) (15 unk. sex)	Squaw Creek NWR Nebraska
*Franklin Island	Howard	1989	178 (58:120)	Squaw Creek NWR Mar. Tem. Clair CA
New Cambria	Macon	1990	100 (30:70)	Kansas
*Ardmore	Macon	1990	138 (53:85)	Squaw Creek NWR Kansas
Hannibal	Marion	1990	123 (22:101)	Squaw Creek NWR Bilby Ranch CA Bob Brown CA
Smileyville	Marion	1990	97 (21:76)	Kansas
Kaseyville	Randolph Macon	1991	143 (34:109)	Nebraska
Clifton Hill	Randolph	1991	144 (34:110)	Nebraska
Bethel	Shelby	1991	143 (33:110)	Bilby Ranch CA Grand Pass CA Bob Brown CA
Glasgow	Howard Chariton	1991	141 (27:114)	Kansas
Salisbury	Chariton	1991	135 (25:110)	Kansas
Rothville	Chariton	1993	112 (19:93)	Bob Brown CA South Dakota
Mendon	Chariton	1993	135 (38:97)	South Dakota Mo. Private Land
Bogard	Carroll	1993	123 (33:90)	South Dakota
Roads	Carroll	1993	121 (23:98)	South Dakota Mo. Private Land
Plymouth	Carroll	1994	176 (23:153)	South Dakota Mo. Private Land
Regal	Ray	1994	219 (39:180)	South Dakota
Stet	Ray	1994	179 (54:125)	South Dakota
Braley	Clinton	1996	141 (28:113)	South Dakota
West Keystone	Clinton	1996	165 (27:138)	South Dakota
Starfield	Clinton	1996	173 (40:133)	South Dakota
Plattsburg	Clinton	1996	156 (19:137)	South Dakota
Wexford	Clinton	2000	116 (32:84)	South Dakota

\*Release sites classified as failures.